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Nebraska's Economic Structure

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Nebraska's economy is in transition from a goods producing economy to a service producing economy. In a sense, this economic transition is a well-established megatrend more than 100 years in the making, that has intensified during the last 5 years. From the mid-1960s to 1979, the rate of growth in nonagricultural employment and income in Nebraska nearly matched that of the nation. But, since 1979, Nebraska's rate of growth in employment has lagged the nation. Nebraskans must recognize that their economy is influenced largely by external forces, for example, national farm policy and monetary policy. Nebraskans should pursue policies that recognize the transition in the economy and direct state efforts toward policies over which they have some influence. Prospective development targets include telecommunications, insurance, and high-technology manufacturing.

Introduction

The Nebraska economy is in transition. It is characterized more and more as a service economy (transportation and public utilities; trade; finance, insurance, and real estate; services; and government sectors) and less and less as a goods producing economy (agriculture, construction, and manufacturing). In many respects, this transition reflects developments in national and international economies.

Transition is nothing new to the Nebraska economy. Over the past 110 years, the economy has evolved from one in which 70 to 80 percent of the work force was engaged in agriculture to an economy in 1986 with less than 10 percent of the work force directly involved in the production of grains or livestock.

The economic history of Nebraska is replete with communities which developed to fill an economic function only to see the need for that activity evaporate and the community disappear. The community of Antioch, Nebraska, is a case in point. Students of Nebraska history will recall that Antioch developed during World War I as a source of potash. American industry was cut off from European sources of potash by the war, and Antioch developed and flourished. With the end of hostilities and the resumption of international trade, the town eventually all but vanished.

Nearly 80 percent of Nebraska's counties attained their peak populations prior to 1940.[1] The decline of rural Nebraska has been a continuous process since the late 19th century, as technological changes in agricultural production released laborers for work in urban areas. This process continues in 1986.

The development of the interstate highway system and the network of roads feeding the interstate highway system has increased agricultural productivity by making it less costly to move grain and livestock to major population centers. Prior to the construction of the interstate highway system, the real resource cost of moving grains and livestock from Dawson County to Denver or Omaha, for example, may have been twice as high.

While transition is difficult for some individuals, transition and change are important elements of progress, and they contribute to advances in living standards. The health and vitality of our economic system come from transition and the risks individuals assume in this process.

In the early 1970s, Nebraska's economy experienced rapid real economic growth. Real personal income[2] increased 25 percent in a scant 2-year period(1972-73). Economic activity peaked in certain Nebraska sectors in 1978-79; then, the rapid growth experienced during the early 1970s was replaced by slow but steady growth in employment and real income. Unfortunately, some investment decisions were made on the assumption that the unusually high rates of growth of the 1970s would continue into the 1980s.

The rate of economic growth slowed and declined in 1980. Furthermore, growth was distributed less evenly throughout the state economy during 1979-85. Construction and manufacturing were particularly hard hit. By 1985, these sectors had not equaled the peak levels of 1978-79. By contrast, the service industry experienced no slowdown in growth over the interval 1967-85. The finance, insurance, and real estate sector has experienced solid growth since 1981, and the government sector has had limited growth since 1980.

Contrasting patterns of growth paint a mixed picture of the Nebraska economy during the 1980s. Opportunities for employment in construction, manufacturing, and agriculture may be limited in Nebraska. Employment opportunities in services are healthy and vibrant. Some observers have warned that agricultural problems will become urban problems, repeating the economic setting of the 1930s. Yet, growth in employment and income in services was so large that it offset declines in construction and manufacturing. Despite the seriousness of the agricultural crisis, there is little evidence that agricultural problems are affecting nonagricultural sectors of Nebraska's economy.

In this chapter we examine the structure of Nebraska's economy through employment and personal income. The choice of these two measures of economic activity is partly a matter of necessity; no other data series better describe the Nebraska economy than employment and personal income.

A review of employment patterns is presented, followed by an examination of income trends by industry. The role of agriculture in the economy is examined next, followed by a review of Nebraska's business climate. Conclusions and observations about the evolving structure of Nebraska's economy are presented. In some cases, data are presented for the interval 1959-85. At other times, information is presented from 1965 or 1967 to 1985. Where possible, 1985 data are used, but in some cases the most recent data are from 1984.

In preparing this chapter, choices had to be made about which subjects to cover. An economy as large, diverse, and geographically dispersed as Nebraska's resists simple characterizations. Some observers will think that our analysis ignores the most important economic issues. No claim is made that our analysis is comprehensive. The authors focused on areas that appear to be critical issues for the state's future well-being. The authors recognize that some issues will be controversial and disputed by others.

Nebraska's Employment Base, 1967-85

Employment in Nebraska has followed an upward trend since 1967, rising 28.7 percent from 623,000 in 1967 to 802,000 in 1985 (table 1). Since 1967, nonagricultural employment rose 42.7 percent, while employment in agriculture declined 33.5 percent. The decline in agricultural employment is a continuation of a 100-year trend.

The composition of employment has shifted toward services and away from agriculture. Service sector employment rose to 142,400 workers in 1985, up 92.3 percent (74,100 workers) from 1967 (table 2).

Table 1 — Civilian employment, Nebraska and United States, 1967-85

Year	Nebraska total	Annual change	U.S. total	Annual change
	Thousands	**Percent**	**Thousands**	**Percent**
1967	623	NA	74,372	NA
1968	629	.97	75,920	2.08
1969	643	2.25	77,902	2.61
1970	641	-.40	78,678	1.00
1971	650	1.42	79,367	.88
1972	675	3.86	82,153	3.51
1973	701	3.95	85,064	3.54
1974	723	3.03	86,794	2.03
1975	713	-1.27	85,846	-1.09
1976	726	1.77	88,752	3.39
1977	751	3.43	92,017	3.68
1978	765	1.81	96,048	4.38
1979	783	2.37	98,824	2.89
1980	776	-.92	99,303	.48
1981	773	-.34	100,397	1.10
1982	766	-.92	99,526	-.87
1983	770	.53	100,834	1.31
1984	788	2.41	105,005	4.14
1985	802	1.72	107,150	2.04

NA = Not applicable.

Source: Nebraska Department of Labor and Bureau of Business Research calculations; U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*, March 1986, p. 8.

Aside from 1976, when there was virtually zero growth, service employment has realized yearly gains. The modern service sector includes well-paid computer repair specialists, accountants, attorneys, and medical and health specialists. The traditional view of services as housekeepers, young persons working at fast-food outlets, and other low-paying jobs is incomplete.

Table 2—Annual employment data, Nebraska, 1967-85

Year	Total[1]	Nonagriculture[2]	Agriculture	Other nonagriculture	Mining	Construction	Manufacturing-durables	Manufacturing nondurables	Manufacturing[3]	Transportation, communication, and utilities	Trade	Finance, insurance, and real estate	Services	Government
								Thousands						
1967	623.0	508.7	114.3	64.3	1.7	23.6	38.6	41.5	80.1	36.5	110.2	26.2	74.1	92.1
1968	629.0	519.0	110.0	62.7	1.7	23.8	41.8	41.5	83.2	36.7	114.1	26.9	76.0	94.0
1969	643.1	535.4	107.8	63.3	1.8	25.2	45.3	41.4	86.7	36.8	117.3	27.9	79.1	97.4
1970	640.6	550.8	89.7	68.8	1.6	24.6	43.9	41.1	85.0	37.2	120.8	29.0	82.9	101.0
1971	649.7	558.7	91.0	70.0	1.6	23.9	41.5	41.5	83.0	37.3	122.1	29.6	86.0	105.3
1972	674.7	586.2	88.5	71.4	1.7	27.6	44.4	42.1	86.4	37.8	130.8	30.1	91.7	108.8
1973	701.4	612.2	89.2	70.9	1.6	29.2	48.4	42.1	90.5	38.6	138.9	32.3	93.4	116.9
1974	722.6	634.6	88.0	72.5	1.8	29.8	48.9	44.5	93.4	39.9	143.9	33.6	98.5	121.4
1975	713.5	630.1	83.4	72.4	1.6	28.1	42.2	43.2	85.4	38.7	144.7	34.4	100.2	124.7
1976	726.1	644.0	82.2	71.6	1.7	30.4	44.9	43.0	87.9	40.7	150.8	35.7	100.4	124.9
1977	751.0	671.2	79.8	77.5	1.8	32.3	47.6	43.1	90.6	42.0	156.1	37.7	104.1	129.2
1978	764.6	690.5	74.1	80.5	1.8	33.0	48.6	45.4	94.0	43.8	159.0	39.5	108.8	130.3
1979	782.8	710.1	72.7	78.9	1.8	32.4	52.6	46.9	99.5	47.9	164.1	41.0	114.0	130.6
1980	775.6	703.5	72.1	76.1	1.8	29.0	49.9	46.6	96.4	47.8	163.6	42.1	116.0	130.9
1981	773.0	699.6	73.4	76.5	1.9	26.1	48.2	46.8	94.9	47.4	161.8	41.2	120.1	129.7
1982	765.8	690.7	75.1	80.8	1.9	23.5	43.2	44.7	87.9	44.6	158.5	41.5	122.7	129.4
1983	769.9	694.1	75.8	83.3	1.9	23.5	42.0	42.8	84.8	43.2	157.9	41.9	127.6	130.2
1984	788.4	712.1	76.4	83.6	1.7	24.0	45.8	43.2	89.0	42.8	160.8	43.2	135.4	131.7
1985	802.0	726.0	76.0	75.7	1.8	26.5	44.0	44.9	88.9	43.7	166.6	45.2	142.4	135.2

[1]Total = Agriculture + Nonagriculture.
[2]Nonagriculture + Other Nonagriculture + Mining + Construction + Manufacturing + Transportation, Communication, and Utilities + Trade + Finance, Insurance, and Real Estate + Services + Government.
[3]Manufacturing = Manufacturing-Durables + Manufacturing-Nondurables.
Source: Nebraska Department of Labor, updated with March 1985 benchmark.

The finance, insurance, and real estate (FIRE) industry ranked second in employment gains with an increase of 72.5 percent, while wholesale and retail trade followed in third place with a 51.3 percent rise in employment. The government sector's 46.8 percent increase ranked fourth in employment expansion, followed by the transportation, communication, and utilities sector (TCU) with a 19.8 percent gain.

Nebraska has a concentration of employment in the insurance industry. The insurance industry is more important in Nebraska than in surrounding states. More than 20,000 persons are employed in this industry and earnings are above average.[3]

The government sector in Nebraska is unique in the nation because its electric utilities are publicly owned. Consequently, all electric utilities employees are classified as local government employees. In other states, electric utilities employees usually are counted in the transportation, communication, and utilities sector.

The gap in employment generation between Nebraska and the United States has widened since 1979. Table 2 shows that employment in Nebraska peaked at 783,000 in 1979. It was not until 1984 that employment surpassed the 1979 peak. Employment in Nebraska increased at 2.4 percent over the interval 1979-85; nationally, employment increased 8.5 percent.

Between 1979 and 1983, Nebraska lost 30,000 jobs in three key industries—construction, manufacturing, and TCU. While employment increased in these industries over the long term (1967-85), the failure of employment to reach new peaks was significant for the state's economy. Had these 30,000 jobs been maintained, Nebraska's increase in employment over the interval 1979-85 would have been 6.8 percent (better than the 2.4 percent recorded but still less than the 8.5 percent gain nationally). Because positions in construction, manufacturing, and TCU are among the better paid jobs, the loss of these 30,000 jobs may affect the long-term vitality of the state's economy. Also, it may be difficult for individuals in construction, manufacturing, and TCU jobs to find employment in the growing service sector because they may not have the skills required for these jobs.

Despite the long-term rising employment trend, Nebraska has lagged the nation in growth in employment. From 1967-85, employment in the United States increased 44.1 percent, while employment in Nebraska grew 28.7 percent. During the interval 1967-85, growth in employment in the state exceeded that of the nation only during 1971-74. Nebraska has experienced five annual declines in employment since 1967, compared with only two declines for the nation as a whole.

Nebraska's record of deteriorating job creation since 1979 is related to events beyond the state's influence. Nationally, employment in construction, manufacturing, and TCU declined from 30.6 million in 1979 to 29.4 million in 1985, a 4-percent drop.[4] Nebraska's loss resulted from technical changes and shifts in demand. Nebraska's loss of 30,000 jobs in these three industries represented a 12-percent decline, much larger than the 4-percent drop nationwide.

Energy prices may have contributed to the loss of jobs in construction, manufacturing, and TCU. As energy prices increased in the 1970s, coal and oil from Colorado, Montana, Wyoming, and other states west of Nebraska assumed new importance to the national economy. Nebraska participated in the energy price boom through the construction of new power plants, the extension of rail lines, the double tracking of some rail lines, and the construction of a rail car repair facility at Alliance.

The construction phase of these projects brought an unprecedented level of prosperity to central and western Nebraska, a level of prosperity that was not sustainable. Incomes generated by these projects may have contributed to the rise in land prices because individuals employed in these energy-related projects used their earnings to finance land purchases, thereby fueling land price increases.

A recent study by the Federal Reserve Bank of Kansas City showed that high-technology industries recently contributed to economic development in its district and are expected to continue to be important.[5] High technology was defined as "manufacturing industries that share the common characteristics of substantial scientific activity and technological innovation."

Nebraska's high-tech manufacturing base is below the national average in employment. The Kansas City Federal Reserve Bank reported high-tech employment in Nebraska as 3.2 percent of total nonagricultural employment, compared with 5.8 percent nationally. The bank reported that high-tech industries can be aided by reduced taxes, less red tape in government regulations, and incentives such as investment tax credits.

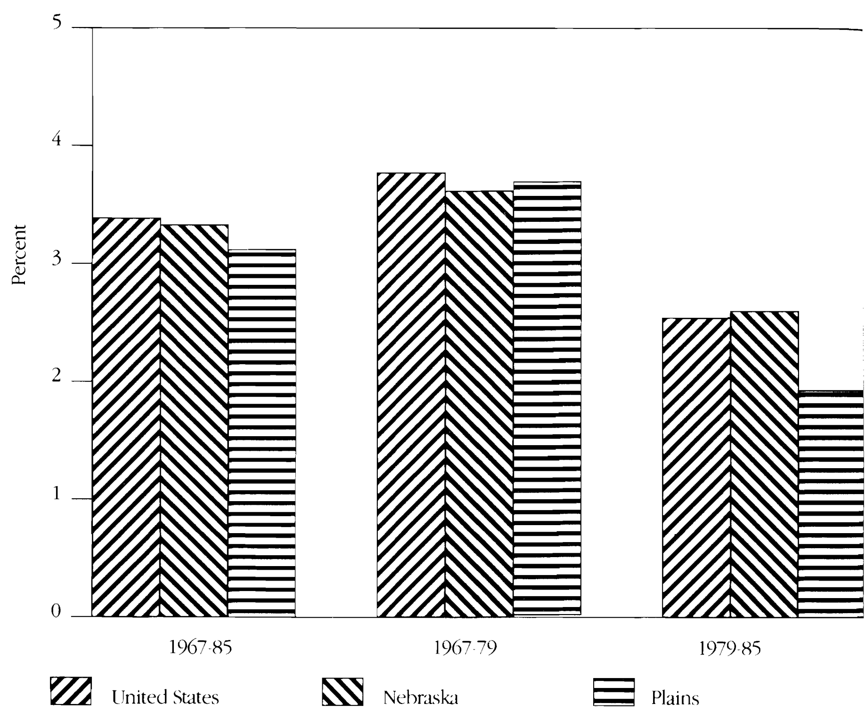
Employment gains in Nebraska, with few exceptions, are likely to continue to lag the nation over the next decade. And, the state will continue to move from a goods producing economy to a service economy.

Nebraska's Income Base

Personal income is an important measure of economic activity, providing a measure of potential retail sales and allowing comparisons with other states and areas. Personal income for the states is calculated by the U.S. Department of Commerce using the national income and accounting framework. Personal income is a net or value added concept, which means that efforts have been made to avoid double counting.

Figure 1 and table 3 illustrate that growth in personal income in Nebraska has either kept pace with or lagged growth in the United States, depending on the starting and ending dates of the comparison. Table 3

Figure 1
Total personal income
(Price-adjusted average annual changes)



also shows that if we use 1959 as the starting date, Nebraska has lagged national rates of growth, but if we use the mid-1960s as the starting point, Nebraska has kept pace with national rates of growth. If the comparison stops in 1984, Nebraska does not look as good as it does if the ending date is 1985, because large commodity payments by the federal government in 1985 boosted all Plains states' incomes.[6] It is reasonable to conclude that growth in personal income in Nebraska is 90-100 percent of growth in the United States, depending on the beginning and ending dates. During 1959-85, growth in personal income in Nebraska averaged 95 percent of that of the United States.

Table 3—Comparison of personal income, 1959-85

	Nebraska			United States			Plains states		
Year	Value	Change from prior year	Real change from prior year	Value	Change from prior year	Real change from prior year	Value	Change from prior year	Real change from prior year
	Million dollars	— — Percent — —		Million dollars	— — Percent — —		Million dollars	— — Percent — —	
1959	2,754	NA	NA	382,550	NA	NA	30,191	NA	NA
1960	2,945	6.94	5.44	398,843	4.26	2.80	31,762	5.20	3.73
1961	3,012	2.28	1.14	414,285	3.87	2.72	32,837	3.38	2.24
1962	3,282	8.96	8.07	440,023	6.21	5.34	35,102	6.90	6.02
1963	3,388	3.23	2.11	462,406	5.09	3.94	36,598	4.26	3.13
1964	3,487	2.92	1.82	495,188	7.09	5.94	38,179	4.32	3.20
1965	3,860	10.70	9.23	536,152	8.27	6.84	42,070	10.19	8.73
1966	4,169	8.00	5.76	582,630	8.67	6.41	45,373	7.85	5.61
1967	4,332	3.90	1.27	623,757	7.06	4.35	47,665	5.05	2.39
1968	4,627	6.82	2.91	683,561	9.59	5.58	51,879	8.84	4.86
1969	5,248	13.42	8.65	747,536	9.36	4.76	56,816	9.52	4.91
1970	5,578	6.28	1.76	803,922	7.54	2.97	61,087	7.52	2.95
1971	5,974	7.10	2.73	861,904	7.21	2.84	65,167	6.68	2.33
1972	6,785	13.58	9.59	944,852	9.62	5.77	72,362	11.04	7.13
1973	8,104	19.44	13.12	1,058,902	12.07	6.14	85,915	18.73	12.44
1974	8,278	2.15	-6.64	1,162,203	9.76	.31	89,960	4.71	-4.30
1975	9,310	12.46	4.42	1,258,643	8.30	.55	97,054	7.89	.17
1976	9,618	3.31	-2.22	1,385,201	10.06	4.16	103,987	7.14	1.41
1977	10,488	9.05	2.59	1,534,708	10.79	4.23	115,891	11.45	4.84
1978	11,768	12.20	4.90	1,726,185	12.48	5.15	130,196	12.34	5.03
1979	13,241	12.52	3.35	1,942,655	12.54	3.38	146,639	12.63	3.46
1980	13,968	5.49	-4.48	2,156,715	11.02	.53	158,091	7.81	-2.38
1981	16,535	18.38	8.62	2,420,098	12.21	2.96	179,672	13.65	4.28
1982	17,111	3.48	-2.11	2,575,793	6.43	.69	187,933	4.63	-1.02
1983	17,429	1.86	-2.06	2,733,579	6.13	2.04	195,077	3.77	-.22
1984	20,189	15.84	11.34	3,016,317	10.34	6.06	219,497	12.52	8.15
1985	22,013	9.04	5.71	3,206,597	6.31	3.07	233,555	6.40	3.16
1959-67	NA	5.82	4.31	NA	6.30	4.78	NA	5.87	4.36
1967-79	NA	9.76	3.64	NA	9.93	3.80	NA	9.82	3.70
1967-84	NA	9.48	3.18	NA	9.71	3.40	NA	9.40	3.10
1967-85	NA	9.45	3.32	NA	9.52	3.38	NA	9.23	3.11
1979-85	NA	8.84	2.66	NA	8.71	2.54	NA	8.07	1.93

NA = Not applicable.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income: 1929-82*, and unpublished data.

Recent changes in the composition of personal income may be the most significant because they affect the economy more than events of the 1950s and 1960s. From 1979-85, personal income in the Plains states grew less rapidly than personal income in the United States. Increases in personal income, both real and nominal, declined during this period in response to two recessions and a slowdown in the rate of inflation. Nebraska was affected, as were other states.

This adjustment to slower rates of growth in income was especially difficult in the Plains region. Nebraska and the other Plains states also were buffeted by a decline in grain exports and a fall in red meat consumption. Although growth in personal income in Nebraska in 1979-85 exceeded growth in the United States, sizable commodity payments by the federal government in 1985 boosted incomes in Nebraska and Plains States. This is likely to be a temporary boost to income unless Congress continues to expand the support program.

Personal income in Nebraska increased from $2.8 billion in 1959, to $4.3 billion in 1967, to $22 billion in 1985. Nominal personal income in Nebraska and the United States increased approximately 9.5 percent per year during 1967-85.

Because of Nebraska's relatively large farm sector and the volatility in farm income, nonfarm personal income allows for a more suitable comparison between Nebraska and the United States. Table 4 shows that growth in nonfarm income in Nebraska generally has lagged that of the United States, but it has been close to the rate of growth in the Plains states.

Since 1959, growth in nonfarm income has averaged 93 percent of the national rate of growth. Between 1967-85, real nonfarm income in Nebraska rose an average of 3.30 percent, compared with 3.28 percent for the Plains states and 3.46 percent for the nation. As figure 2 illustrates, most of the growth occurred between 1967-79, as Nebraska's real nonfarm income expanded 3.92 percent per year, compared with 3.85 percent for both the Plains states and the nation. Since 1979, however, Nebraska's rate of growth has fallen to 2.08 percent, below the 2.15 percent for the Plains states and substantially below the 2.68 percent for the United States.

If comparisons of personal income in Nebraska (both total and nonfarm) had been on a per capita basis, the state would have fared better than both the United States and the Plains states. This is because Nebraska's population has grown annually at less than half the national

Table 4—Comparison of nonfarm personal income, 1959-85

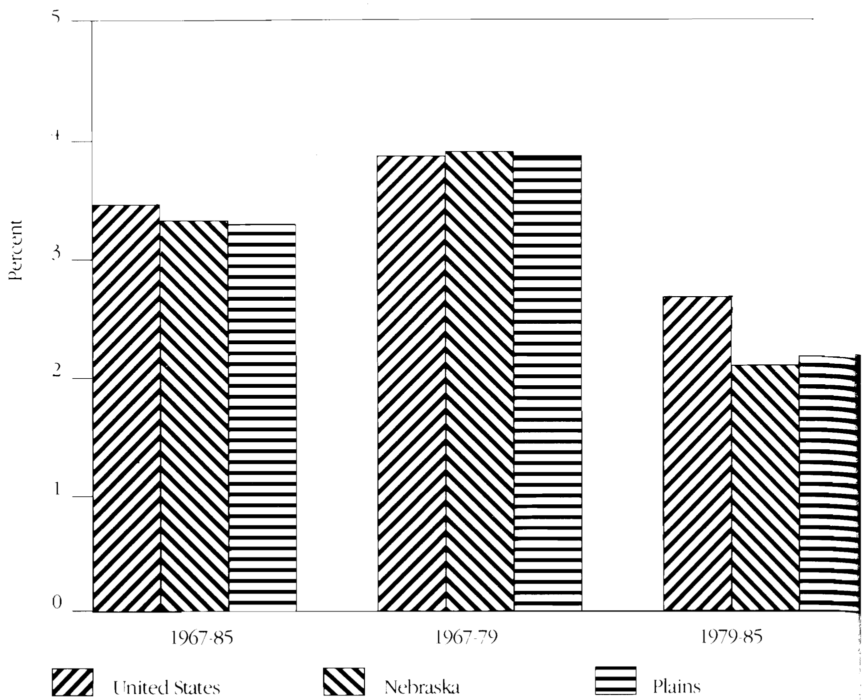
Year	Nebraska: Value	Nebraska: Change from Prior year	Nebraska: Real change from prior year	United States: Value	United States: Change from prior year	United States: Real change from prior year	Plains states: Value	Plains states: Change from prior year	Plains states: Real change from prior year
	Million dollars	— — Percent — —		Million dollars	— — Percent — —		Million dollars	— — Percent — —	
1959	2,433	NA	NA	369,180	NA	NA	27,672	NA	NA
1960	2,584	6.21	4.72	384,658	4.19	2.73	28,766	3.95	2.50
1961	2,717	5.15	3.98	399,523	3.86	2.71	29,930	4.05	2.89
1962	2,864	5.41	4.54	424,871	6.34	5.47	31,618	5.64	4.77
1963	3,010	5.10	3.96	447,433	5.31	4.17	33,167	4.90	3.76
1964	3,182	5.71	4.58	481,215	7.55	6.39	35,375	6.66	5.51
1965	3,377	6.12	4.71	519,924	8.04	6.61	38,009	7.45	6.02
1966	3,602	6.67	4.45	565,336	8.73	6.47	41,119	8.18	5.93
1967	3,863	7.24	4.53	607,815	7.51	4.79	44,022	7.06	4.35
1968	4,197	8.67	4.69	667,402	9.80	5.79	48,240	9.58	5.57
1969	4,647	10.72	6.06	729,381	9.29	4.69	52,519	8.87	4.29
1970	5,031	8.25	3.65	785,791	7.73	3.15	56,638	7.84	3.26
1971	5,384	7.03	2.66	843,056	7.29	2.91	60,641	7.07	2.70
1972	5,977	11.01	7.11	922,275	9.40	5.55	66,208	9.18	5.34
1973	6,773	13.30	7.30	1,021,472	10.76	4.89	74,033	11.82	5.90
1974	7,485	10.52	1.02	1,130,494	10.67	1.15	82,143	10.95	1.41
1975	8,127	8.57	.81	1,228,379	8.66	.88	89,673	9.17	1.36
1976	9,039	11.22	5.27	1,359,485	10.67	4.75	99,550	11.01	5.07
1977	9,887	9.38	2.90	1,508,345	10.95	4.37	110,168	10.67	4.11
1978	10,876	10.00	2.84	1,692,558	12.21	4.91	122,079	10.81	3.60
1979	12,192	12.10	2.97	1,903,859	12.48	3.33	137,841	12.91	3.72
1980	13,579	11.38	.86	2,127,320	11.74	1.18	152,966	10.97	.49
1981	15,186	11.83	2.61	2,381,306	11.94	2.71	170,338	11.36	2.18
1982	16,321	7.48	1.67	2,543,584	6.81	1.05	182,443	7.11	1.32
1983	17,000	4.16	.15	2,710,089	6.55	2.45	192,049	5.26	1.22
1984	18,541	9.06	4.83	2,976,853	9.84	5.58	210,458	9.59	5.33
1985	19,588	5.65	2.43	3,167,945	6.42	3.18	222,330	5.64	2.42
1959-67	NA	5.95	4.43	NA	6.43	4.91	NA	5.98	4.46
1967-79	NA	10.05	3.92	NA	9.98	3.85	NA	9.98	3.85
1967-84	NA	9.67	3.35	NA	9.80	3.48	NA	9.64	3.33
1967-85	NA	9.44	3.30	NA	9.61	3.46	NA	9.41	3.28
1979-85	NA	8.22	2.08	NA	8.86	2.68	NA	8.29	2.15

NA = Not applicable.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income: 1929-82*, and unpublished data.

rate, 0.5 percent compared with slightly more than 1 percent. Nebraska's 1985 per capita personal income amounted to $13,699, compared with $13,451 nationally. Although personal income in Nebraska was slightly above the national level in 1985, it is typically about 95-97 percent of the national level.

Figure 2
Nonfarm personal income
(Price adjusted average annual changes)



Composition of Income

The composition of income in Nebraska differs from that of the United States in several important respects. These differences reflect a structural difference between Nebraska and the United States.

Farm income as a proportion of total earnings is much higher in Nebraska than in the nation. Furthermore, Nebraska is becoming less like the nation with respect to income from agriculture. Farm income constituted 15.4 percent of income in Nebraska in the late 1960s, compared with 3.5 percent nationwide. By the 1980s, farm income had declined to 9 percent of total earnings in Nebraska, but farm income was 1.5 percent of total earnings in the United States. Farm income continues to increase less rapidly than nonfarm income, but the decline in farm income as a percent of total income is slower in Nebraska than in the nation.

Other shifts in the composition of income are also significant. Earnings from manufacturing in Nebraska have been less proportionate than in the United States. Both manufacturing and construction incomes declined in importance in the United States and Nebraska during 1967-85. As these two industries' earnings grew less rapidly than total personal income, income from services boomed. Personal income from manufacturing in Nebraska has declined at a slower rate than in the nation. In 1967, income from manufacturing was 29.1 percent for the nation and 16 percent in Nebraska. Personal incomes in Nebraska and the United States advanced at roughly the same rate during 1967-85. By 1985, U.S. earnings from manufacturing were 23.2 percent of the total, and, in Nebraska, earnings from manufacturing were 14.6 percent of total earnings. Manufacturing earnings in Nebraska remain well below the national average but more nearly resembled the nation in 1985 than in 1967.

Tables 5a and 5b show that earnings from transportation, communication, and utilities (TCU) are nearly as significant in Nebraska as farm income. In 1985, income from TCU was 10.2 percent in Nebraska, compared with 7.4 percent in the United States. Because of the importance of railroads in Nebraska, income from TCU has been above national averages. In 1967, TCU accounted for 8.4 percent of earnings in Nebraska and 7.1 percent of earnings in the United States. Nationally, earnings from TCU increased slightly as a percent of total, but, in Nebraska, earnings from TCU increased from 8.4 percent to 10.2 percent. Although the TCU sector includes utilities (electric power is publicly owned in Nebraska), earnings from the generation and distribution of electricity are classified as government, making Nebraska's dependence on this sector more substantial than the numbers indicate.

Earnings from the service sector have increased in Nebraska as they have in the United States. Over the interval 1967-85, earnings from services increased from 12.8 percent to 18.2 percent in Nebraska and from 14.7 percent to 20.9 percent in the United States. The shift toward service earnings has accelerated since 1981.

The important contribution of the service sector to Nebraska's economy is illustrated by annual changes in personal income over the interval 1967-85. Real personal income declined in 5 of these 18 years, but service earnings increased in each of these years. Real earnings in construction and manufacturing declined during 1979-85; in contrast, real earnings in Nebraska's service sector recorded average annual increases of over 6 percent during 1981-85. In 1985, real earnings in

Table 5a—Personal income, Nebraska, 1967-85

Year	Total	Farm	Nonfarm	Farm proprietors	Nonfarm proprietors	Agriculture services, forestry, and fisheries	Mining	Construction	Manufacturing-durablés	Manufacturing-nondurables	Manufacturing	Transportation, communication, and utilities	Trade	Finance, insurance, and real estate	Services	Government
								Million dollars[1]								
1967	4,332	469	3,863	404	419	18	12	221	259	288	547	286	630	197	438	543
1968	4,627	429	4,198	374	417	16	12	241	298	305	603	310	676	214	476	610
1969	5,248	600	4,648	537	458	19	13	280	344	320	664	332	743	230	542	681
1970	5,578	547	5,031	481	445	19	14	290	352	337	689	367	793	244	580	794
1971	5,974	589	5,384	513	460	20	11	304	359	356	714	400	841	268	623	862
1972	6,785	808	5,977	721	510	22	15	349	414	384	797	449	911	297	685	923
1973	8,104	1,332	6,772	1,228	560	25	17	390	469	414	883	508	1,027	319	763	1.003
1974	8,279	793	7,486	673	583	29	31	427	510	472	982	574	1,158	342	838	1.082
1975	9,310	1,183	8,127	1,068	620	30	27	448	499	500	999	601	1,276	381	920	1.210
1976	9,618	579	9,039	440	698	29	33	535	588	557	1,145	700	1,410	444	1,039	1.307
1977	10,489	602	9,887	442	742	33	34	589	670	576	1,245	778	1,520	508	1,130	1.442
1978	11,768	893	10,875	712	848	38	29	646	742	661	1,403	918	1,669	583	1,284	1.579
1979	13,241	1,050	12,192	840	919	40	43	662	870	742	1,612	1,068	1,872	641	1,444	1.705
1980	13,968	389	13,579	161	906	40	45	641	916	828	1,744	1,160	2,007	698	1,607	1.855
1981	16,535	1,349	15,186	1,123	882	49	50	595	973	908	1,881	1,241	2,108	732	1,788	2.045
1982	17,111	789	16,321	531	918	53	60	569	922	905	1,827	1,297	2,174	797	2,011	2.214
1983	17,429	428	17,000	174	1,045	55	45	603	955	915	1,870	1,358	2,218	880	2,214	2.348
1984	20,189	1,648	18,541	1,383	1,216	60	55	696	1,115	987	2,102	1,456	2,363	959	2,452	2.501
1985	22,013	2,425	19,588	2,143	1,343	71	60	760	1,098	1,054	2,152	1,497	2,497	1,034	2,675	2.637

[1]1982 dollars.

Table 5b — Real personal income, Nebraska, 1967-85

Year	Total	Farm	Nonfarm	Farm proprietors	Nonfarm proprietors	Agriculture services, forestry, and fisheries	Mining	Construction	Manufacturing-durables	Manufacturing-nondurables	Manufacturing	Transportation, communication, and utilities	Trade	Finance, insurance, and real estate	Services	Government[1]
									Million dollars[1]							
1967	10,966	1,187	9,778	1,023	1,061	46	30	560	656	728	1,384	725	1,596	499	1,108	1,374
1968	11,285	1,047	10,238	913	1,016	39	29	587	727	744	1,471	757	1,649	521	1,162	1,488
1969	12,262	1,402	10,859	1,255	1,070	44	30	653	803	748	1,551	776	1,737	537	1,266	1,590
1970	12,478	1,223	11,254	1,077	996	43	31	648	787	754	1,541	821	1,773	546	1,298	1,777
1971	12,819	1,264	11,554	1,100	987	43	24	651	769	763	1,533	858	1,804	576	1,336	1,849
1972	14,048	1,673	12,375	1,493	1,055	46	31	723	856	794	1,650	930	1,887	614	1,419	1,911
1973	15,890	2,611	13,279	2,408	1,097	49	33	765	920	811	1,731	996	2,014	626	1,497	1,966
1974	14,836	1,421	13,415	1,205	1,044	52	56	764	914	846	1,760	1,029	2,074	613	1,501	1,939
1975	15,491	1,969	13,522	1,777	1,031	50	45	745	829	832	1,662	1,000	2,124	634	1,531	2,014
1976	15,146	911	14,235	693	1,098	46	52	842	926	877	1,803	1,102	2,220	699	1,635	2,058
1977	15,539	891	14,647	655	1,099	49	50	873	992	853	1,844	1,153	2,251	753	1,674	2,137
1978	16,435	1,247	15,189	994	1,185	53	41	903	1,036	924	1,960	1,282	2,331	814	1,793	2,206
1979	16,933	1,342	15,590	1,074	1,175	51	55	847	1,112	949	2,061	1,365	2,394	820	1,846	2,180
1980	16,129	449	15,680	186	1,046	46	52	740	1,058	956	2,014	1,339	2,318	806	1,856	2,141
1981	17,479	1,426	16,052	1,187	933	52	53	629	1,029	960	1,988	1,311	2,228	774	1,890	2,161
1982	17,111	789	16,321	531	918	53	60	569	922	905	1,827	1,297	2,174	797	2,011	2,214
1983	16,775	412	16,362	167	1,006	53	43	580	919	880	1,800	1,307	2,135	846	2,131	2,259
1984	18,659	1,523	17,136	1,278	1,124	55	51	643	1,030	912	1,942	1,346	2,184	886	2,266	2,311
1985	19,725	2,173	17,552	1,920	1,203	64	54	681	984	944	1,928	1,341	2,237	927	2,397	2,363

[1] 1982 dollars.

service industries were nearly 25 percent higher than in 1981. By contrast, real earnings in durable goods and nondurable goods manufacturing in 1985 were below 1981 levels. Construction earnings were $50 million above 1981 levels, but over $200 million below the 1978 peak.

Despite the recent battering, real net farm income has held up reasonably well. Net farm personal income was $2.2 billion in 1985, well above any of the previous 10 years but less than the $2.6 billion peak recorded in 1973. Farm proprietors' real income peaked in 1973 at $2.4 billion. In 1985, it stood at $1.9 billion, $500 million below the 1973 peak, but well above any of the intervening years.

The sluggishness of Nebraska's economy during 1979-85 centered on the agriculture, construction, TCU, trade, and manufacturing sectors. The boom in construction and manufacturing earnings that occurred in the late 1970s appears to be related to the rising price of energy and a decentralization of manufacturing from metropolitan to nonmetropolitan areas. Unfortunately, these trends were very short in duration.

Nebraska is following a national trend of obtaining an increasing proportion of income from dividends, interest, and rents (DIR) and transfer payments (TP). The increasing significance in total personal income of dividends, interest, and rents and transfer payments (primarily retirement benefits, including social security) indicates an increasingly wealthy society. Part of the increase in wealth is a result of a larger proportion of the population being of retirement age, a time when asset accumulation is typically highest.

An indication of wealth can be found by looking at deposits in Nebraska's financial institutions. In 1984, the U.S. Bureau of the Census reported that Nebraska's deposits totaled $19 billion.[7] This amounted to $11,800 per person, compared with U.S. per capita deposits of $11,186. Since 1967, deposits in commercial banks and federally insured savings and loan institutions have grown 10.7 percent annually in Nebraska, but only 9.9 percent nationally. Growth of deposits for the United States approximates the growth in personal income during 1967-84, but Nebraska's deposit expansion exceeds its growth in income by more than one percentage point.

In 1985, over 21.9 percent of Nebraska's personal income came from dividends, interest, and rents, compared with 18.8 percent nationally. Since 1967, dividends, interest, and rents income has increased more rapidly in Nebraska than in the United States (11.3 percent per year compared with 10.4 percent).

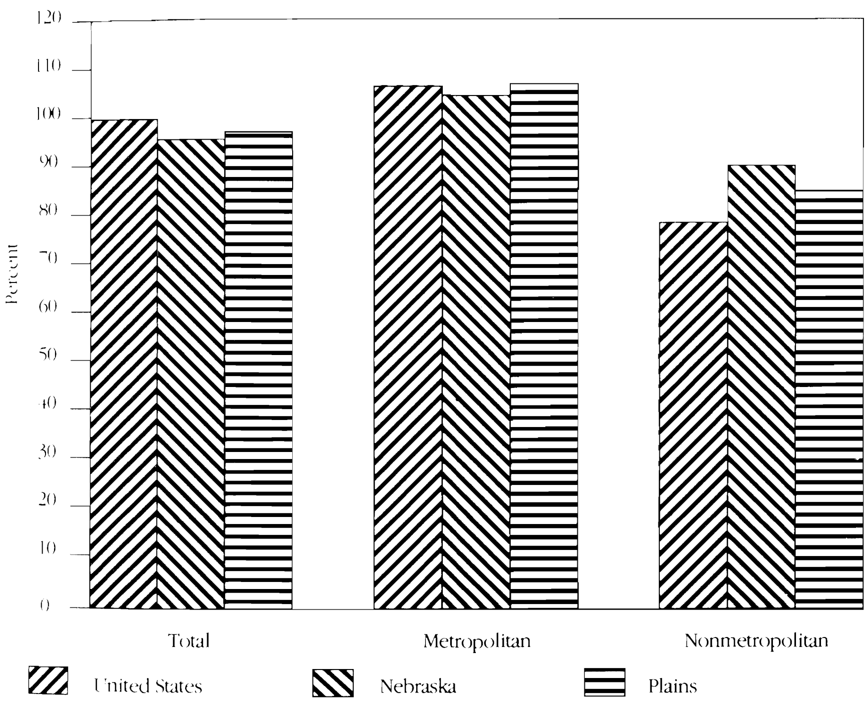
Transfer payments also were more important in total income in 1985 than in 1967. In both Nebraska and the United States, transfer payments were about 8.4 percent of personal income in 1967, compared with 12.1 percent and 13.9 percent respectively in 1985 (table 5).

Within the state, per capita incomes are higher in metropolitan areas than in nonmetropolitan areas (figure 3). Per capita incomes in nonmetropolitan areas increased slightly more rapidly during the interval 1967-84. This more rapid growth is due to the sizable outmigration of residents in nonmetropolitan areas of Nebraska. Nebraska's nonmetropolitan population grew 3.4 percent during 1967-84, while the metropolitan population increased 19.3 percent. Some sectors in nonmetropolitan Nebraska (especially manufacturing and

Figure 3

Total Per Capita Personal Income

(Precentof nation, average 1967-84)



TCU) have grown more rapidly, but overall the growth in total personal income in nonmetropolitan areas lags growth in metropolitan areas.

Perspective on Agricultural Production

Nebraska is a leading crop-producing state and ranks among the top five in cash receipts. In 1985, Nebraska ranked third in corn for grain production, third in sorghum for grain production, ninth in wheat production, and eighth in soybean production. Nebraska ranks fifth nationally in rye production, seventh in hay production, and fifth in dry edible beans production.

Since 1967, Nebraska's agricultural production has shifted toward soybeans and corn and away from wheat. In 1985, Nebraska produced a record 954 million bushels of corn (11 percent of the U.S. total) and a record 85 million bushels of soybeans (4 percent of the U.S. total). Sorghum production has changed little.

Much of the increase in the production of corn and, to a lesser extent, soybeans has resulted from increased irrigation. In 1984, according to the U.S. Bureau of the Census, Nebraska farmers grew half of the nation's irrigated corn for grain and 32 percent of the nation's irrigated soybeans.

Cash farm marketings totaled $7.9 billion in 1985, with $3.3 billion (42 percent) from crops and $4.6 billion in livestock marketings.[8] The distribution of cash receipts has changed. As Professor Schultz and others have observed, farmers are keen capitalists and recognize immediately, without government prompting, the advantage of even the slightest increase in their margins of profit.[9]

Beef and corn are the major sources of cash receipts. In 1965, cattle and calves accounted for 48.8 percent of total cash receipts; in 1984, they accounted for 47.9 percent of total cash receipts. Cash receipts from corn grew from 11 percent of total in 1965 to 19 percent of total in 1984. Irrigation boosted corn yields, and more land was put into corn production. Total receipts from corn advanced from $148 million in 1965 to about $1.3 billion in 1984. Oil crops, primarily soybeans, jumped from 2.2 percent of total to 6.3 percent of total cash receipts during 1965-84. Cash receipts from vegetables garnered a smaller percent of total in 1984 than in 1965 (table 6).

Nebraska's agriculture became more specialized during the interval 1965-84. Corn and cattle accounted for nearly 60 percent of cash receipts

Table 6 — **Nebraska cash receipts by commodity and commodity groups, 1965, 1975, and 1984**

Commodity	1965 Value	1965 Percentage of total	1975 Value	1975 Percentage of total	1984 Value	1984 Percentage of total
	Million dollars	**Percent**	**Million dollars**	**Percent**	**Million dollars**	**Percent**
All commodities	1,348.7	100.0	3,859.0	100.0	7,081.7	100.0
Livestock	969.7	71.9	2,153.2	55.8	4,523.0	63.9
Meat animals	878.6	65.1	2,007.1	52.0	4,313.6	60.9
Cattle and calves	658.8	48.8	1,503.5	39.0	3,390.3	47.9
Dairy products	54.8	4.1	109.3	2.8	158.0	2.2
Poultry and eggs	31.7	2.4	29.2	.8	38.8	.5
Miscellaneous livestock	4.6	.3	7.6	.2	12.6	.2
Crops	379.0	28.1	1,705.8	44.2	2,558.7	36.1
Food grains	75.2	5.6	318.4	8.3	343.4	4.8
Wheat	73.9	5.5	316.7	8.2	341.4	4.8
Feed crops	241.1	17.9	1,099.6	28.5	1,622.9	22.9
Corn	148.5	11.0	882.1	22.9	1,344.2	19.0
Sorghum	69.7	5.2	141.6	3.7	191.2	2.7
Oil crops	29.9	2.2	162.9	4.2	443.8	6.3
Vegetables	14.0	1.0	52.4	1.4	52.7	.7
Dry beans	9.2	.7	45.8	1.2	34.0	.5
Fruits and nuts	.3	0	.4	0	1.4	0
All other crops	18.5	1.4	72.2	1.9	94.5	1.3
Sugar beets	12.1	.9	51.3	1.3	54.0	.8

Source: U.S. Department of Agriculture, Economic Research Service, *Economic Indicators of the Farm Sector: State Financial Summary, 1984.* Washington, DC, 1986 and comparable issues for 1975 and 1965.

in 1965, but by 1984, they accounted for over two-thirds of total cash receipts.

Nebraska's agricultural producers responded to higher grain prices by increasing production over the 20-year interval 1965-84. Reports, such as *Global 2000,* predicted food demand would increase sharply and real food prices would double. As Dennis Avery notes, these conclusions were based on the best available evidence the U.S. government could muster on the world food problem.[10]

Unfortunately for Nebraska producers, exports of American grain plummeted because of expanded food production throughout the world, increased competition from foreign producers, and a higher valued dollar. The demand for U.S. grains is extremely weak and may become weaker. Land prices may fall more, and a substantial amount of land in production likely will be withdrawn from production over the next 20 years. Land with the highest cost of production will be the most vulnerable to withdrawal, because it will be the least likely to earn a profit under lower prices. Irrigated corn production in Nebraska may be unable to compete with dry land production in Illinois, Iowa, and Indiana.

Agricultural exports declined from $44 billion in 1981 to $29 billion in 1985.[11] Little recovery is projected over the next 3 to 5 years. The genetic biotechnology revolution in agriculture is compounding the problem in Nebraska. Avery notes "... Biotechnology ... may ultimately add more to farm productivity than any other development."[12] This new technology has the potential for boosting productivity at rates that are higher than those of the past two centuries.

The sobering implications for Nebraska are that one-third to half of production capacity may be redundant by the year 2000, the capacity to produce corn and cattle will be higher, but the demand will have grown little. Fewer producers will be needed.

Cash farm marketings are not directly comparable to personal income, which is a net or value added concept. Cash receipts represent the sum of agricultural transactions. For instance, a rancher brings a calf to market and sells it to a feed lot operator. The feed lot fattens it and sells it to a packing plant. Cash receipts sum these transactions and do not net out value added. Cash receipts may be two, three, or more times the net value added. Furthermore, cash receipts do not measure production because grain or livestock may move from inventory to market.

The Size of the Agribusiness Sector

There are currently less than 60,000 farms and ranches in Nebraska and there likely will be fewer in 5 or 10 years.[13] Concentration is evident because 2 percent of all farms and ranches produced nearly 40 percent of all cash receipts.[14] Less than 25 percent of all farms and ranches produced over 76 percent of agricultural output, as measured by cash receipts.[15]

In the 1920s, there were over 130,000 farms and ranches in Nebraska. Through consolidation induced by increasing productivity, the number has declined to the present 60,000. The increasing use of genetics and other scientific advances will continue to increase output. As production capacity advances faster than consumption, some land will be redirected to other uses or removed from production.

It is stated frequently that Nebraska's economy is related more closely to agriculture than direct production statistics indicate. While the number of proprietors and hired laborers involved directly in agricultural production is relatively small (somewhat less than 10 percent of total employment) the number of related jobs equals or perhaps even exceeds direct employment in agricultural production. One estimate prepared by U.S. Department of Agriculture (USDA) researchers placed agricultural employment, direct and related, at 25 percent of total employment.[16]

There is no question that agricultural production of grains and livestock and the related support services are sizable in Nebraska. Nebraska's economy is associated more closely with agriculture than is the U.S. economy. The economic well-being of thousands of individuals who supply inputs to agriculture is linked directly to agricultural production. Repair personnel, fertilizer distributors, grain dealers, grain haulers, and others are employed in producing, harvesting, and marketing crops and livestock.

There is, however, a very important distinction between those who work to service agriculture and those who work directly in the production of agricultural crops and livestock. The wages and conditions of employment for agricultural service personnel are determined by the larger labor market for those services. If the price of grain goes up, the wages and salaries of the service personnel may or may not increase, depending on the labor market for these services. Likewise, if the price of grain or livestock declines, service personnel do not have their wages cut automatically.

Service personnel are interchangeable or substitutable in other parts of the economy. For example, a truck driver employed in grain hauling can transfer to long-distance freight hauling. The diesel tractor mechanic can migrate to a similar position repairing automobiles and trucks. Consequently, if wages in agriculture are unattractive relative to wages outside the industry, employees will migrate in the long run. To assume that difficult times or prosperous times in agriculture lead to similar activity for service personnel is incorrect.

Similarly, the profits of the food processing industry are not related to incomes of the farm sector. Little statistical correlation exists between the economic well-being of food producers and food distributors because of the difference in market structure. Farmers and ranchers number in the hundreds of thousands. They are price takers. Food processors are fewer in number and exert some influence over the price at which they sell their products. At times, the interests of agricultural producers clash with those of food producers.

What is the significance of agribusiness in Nebraska? One-quarter to one-third of the economic activity in the state is related to the production of agricultural commodities or agricultural services.

Although agribusiness is large in Nebraska, prosperity (or depression) for grain or livestock producers does not translate into prosperity (or depression) for agribusinesses. As noted earlier, there are some important differences between agricultural producers and the agricultural service industries.

Continued investment in Nebraska's many small communities is a related issue. Production capacity for grain and livestock is expected to expand much faster than world demand. Technology will reduce the need for labor in agriculture and will put pressure on renewing land for production. These trends suggest that the economic function of some small communities will disappear and that some small towns will cease to exist. Larger towns may benefit by consolidating the functions of smaller towns. Outmigration from small communities will continue, for there will not be enough jobs generated in the agricultural service area to retain the present population. The cost of providing the essential infrastructure (education, water, sanitation, and highway maintenance) will increase on a per capita basis in sparsely populated areas. The political influence of smaller communities will be lessened, and, ultimately, the social influence of smaller communities will diminish. We are not writing off entire communities, but we believe that economic diversification will simply be more difficult in some smaller communities.

Nebraska's Business Climate

The term business climate is illusive and means different things to different individuals. Our interpretation is the collective attitudes, statutes, and actions of public officials toward business, including the services provided by the state, such as education and social and health services. In this context, zoning and regulatory bodies can be critical to the business climate.

The results of business climate studies vary widely. For instance, a study done by the accounting firm of Alexander Grant ranked Nebraska's business climate fourth among the fifty states, while a study done at approximately the same time by *INC.* magazine ranked Nebraska forty-ninth (table 7).[17] Measures of the business climate are subjective and reflect the preferences and biases of the investigators.

The number of new incorporations is one measure of the business climate. Nebraska ranks low in new business incorporations. In 1985, it ranked 46th in percentage change in incorporations. Is the number of incorporations low because the business climate is poor, as *INC.* magazine suggests, or is it because Nebraskans lack ideas and the willingness to assume risk? Are government regulations a hindrance to new businesses in Nebraska?

Table 7—Business climate in Nebraska and nearby states

State	INC.	Alexander Grant	Change in new incorporations 1980-85
	— — Number	— —	Percent
Nebraska	49	4	46
Iowa	38	26	49
South Dakota	26	1	38
Minnesota	7	35	23
Colorado	3	15	17
Kansas	23	13	41
Wyoming	48	43	50
Missouri	41	20	30

Source: *INC.*, October 1985; Alexander Grant and Company, *Business Climate*, 1984; and *The Wall Street Journal*, May 19, 1986, p. 320.)

There are no apparent simple answers to these questions. Nebraska's low ranking on measures of entrepreneurial activity is a matter of serious concern. One explanation for this low ranking may be that the agricultural subsidies received by Nebraska farmers have blunted risk taking and entrepreneurial vision. Subsidies discourage change and innovation.[18] This could be a drag on development in the 1980s and 1990s.

Bryan Jones in *The Farming Game* discusses the social pressures that face prospective agricultural innovators.[19] In the chapter on organic vertegration (vertegration in this context means vertical integration, the addition of processing equipment), Jones tells how traditional farmers reacted with skepticism to a neighbor's efforts to raise organic products. Not only did the producer have to find new marketing channels, but he also had to overcome repeated ridicule until his success quieted the critics. Social pressures to conform may be as strong as economic pressures.[20]

The unwillingness of Nebraskans to assume even moderate risk was noted in the *Business Profile and Targets—City of Omaha*.[21] The original settlers were boomers, risk takers who left after the first few difficult years. The boomers were replaced by conservators who buy and hold. The buy and hold concept of investment is not likely to risk investment in new ventures. Any deviation from the tried and proven is regarded with skepticism.

Outlook and Observations

The Nebraska five-sixths to nine-tenths rule likely will be operative in the next decade. This rule indicates that Nebraska's economy will expand at five-sixths to nine-tenths the rate of the national economy. Despite the fact that Nebraska's growth in income matched U.S. levels during 1967-85, the outlook for the coming decade is for less growth in Nebraska than in the nation. Expansion will not always coincide with national trends, but when viewed over an extended period, a 10-percent increase in personal income in the United States will translate into a 8-9 percent gain in personal income in Nebraska. Employment will follow this same general trend. In the 1970s, Nebraska's rate of growth nearly matched that of the nation. Over the 1960s and part of the 1980s, Nebraska lagged national trends.

The outlook for the national economy over the next decade is encouraging. Real economic growth of 2-3 percent a year is expected with relatively modest rates of inflation. Employment growth is anticipated at 1-1.5 percent per year. Over the next 10 years, Nebraska should expect growth in personal income and employment because the national economy is expanding.[22]

This growth will be unevenly distributed, however. Agriculture will continue to decline in relative importance in both the Nebraska and the national economy. The prospects for grain exports are not encouraging and per capita consumption of beef is not expected to equal levels of a few years ago. Nebraska's manufacturing and transportation sectors are likely to grow more slowly than telecommunications and service sectors.

Areas of potential growth in agriculture include specialty products, such as lean beef, beef free of any hormone additives, vegetables, fruits, and nuts. Diversification of agriculture will be important for a limited number of agricultural producers, but it is unlikely that agriculture in Nebraska will ever be as diverse as agriculture in California. It is important to encourage the diversification of agriculture, for it may enable some producers to remain in Nebraska and in production in the coming decade.

Nebraska's economy will continue to be driven by external forces. Farm policy will be made in Washington, and interest rates will be determined by federal monetary and fiscal policies. The rise or decline in Nebraska's economy and regional economies (for example, southwest oil and gas producers) will depend on outside forces.

Nebraskans can undertake certain steps to enhance their state's economy and to reduce their vulnerability. First, Nebraskans should examine perceived antibusiness attitudes concerning the family farm amendment (Initiative 300). As yet, it cannot be conclusively proven that Initiative 300 has had an adverse impact on the state's economy. Many believe that Initiative 300 will bolster Nebraska's agricultural economy, while preserving a way of life. To others, the family farm amendment implies antibusiness and antidevelopment attitudes, creating special conditions and a separate class for Nebraska farmers and ranchers.

Corporations with an interest in locating in Nebraska may be discouraged by Initiative 300. Corporations may locate outside of Nebraska rather than deal with the complications and restrictions imposed by the family farm amendment. Agricultural producers who want to expand into manufacturing, such as food processing, may be prohibited from doing so because of Initiative 300. In some respects, Initiative 300 can be viewed as an impediment to change in the state's economy. Nebraska is competing with 49 other states and is handicapped by the family farm amendment.

Second, Nebraskans can increase their investment in education and coordinate educational policies with the needs of industries targeted for development. Policymakers in states such as Kentucky, Tennessee, Colorado, Ohio, and Texas have adopted strong measures to improve education because they believe that citizens of their states will be unable to compete in the emerging technologically driven society unless they are well-educated. A strong commitment to education is an essential part of a development policy that is within the control of Nebraskans.

Third, Nebraskans can maintain and improve their infrastructure to provide the necessary services that permit firms to expand in an orderly fashion. The streets, roads, airports, and water facilities are in reasonably good condition in Nebraska. Nebraskans can continue to maintain and improve these facilities to encourage economic development. Nebraskans must decide whether public infrastructure money will be concentrated in urban areas or whether it will be distributed evenly throughout the state.

Nebraskans can examine the use of the state's resources in agriculture and related programs. Nebraska currently invests over $20 million in federal and state funds in agricultural research and an additional $12 million in cooperative extension activities. With the dim prospects for grain and livestock, Nebraska may want to shift some of these resources into other areas, such as a center for the development of the telecommunications industry or the development of innovation centers throughout the state. Nebraska's resources are limited; its historically strong commitment to agriculture may be more of a burden than a benefit to development in the next decade.

Nebraska's development policy should recognize the role of services in economic growth. Several recent studies, mentioned below, have suggested industries that could be targeted for development. Industries with development potential in Nebraska include telecommunications, insurance, and high-technology manufacturing, such as instruments and pharmaceuticals. Each of these industries requires a well-educated labor force and low-cost office space. Nebraska has an above-average educated labor force and ample space for office development and should compete well.

A common theme among these studies is the need for appropriate government policies, coordinated with the specific needs of the industries. These studies emphasize the need for appropriate education, taxation, and regulation policies. Nebraska's regulatory policies are critical to further development because industries operate in a regulated environment that has been changing rapidly.

Nebraska can influence the development of high-tech industries in the state. The survey of high-technology firms conducted by the Federal Reserve Bank of Kansas City showed that the most important reasons for locating in a particular state were access to markets, followed by labor skills and labor costs. Three actions that state and local governments can undertake to encourage high-tech and general business expansion are to reduce taxes, to cut red tape, and to offer financial incentives, such as low-interest loans, investment tax credits, property tax abatement, and industrial revenue bonds. But, these factors will not offset the cost of transportation facilities, materials and products, and property.

In the fall of 1983, Nebraska's Governor Kerrey appointed a task force to look at the communication and information industries in Nebraska.[23] The task force concluded that Nebraska already has a strong base in the communication and information industries with the potential to become a world-class center in several areas.

The task force recommended that "Nebraska should look at what can be done to enrich the basic knowledge environment as it relates to the information industry." They also suggested that "Nebraska's public policymakers need to reassess and reorient the state's approach to the regulation of communication." To take advantage of Nebraska's potential, the task force concluded that Nebraskans must change their attitudes to allow a coordinated effort by business, education, and government leaders to promote communication industries.

A third area in which Nebraska may enhance its development prospects is the insurance industry. A report by the Bureau of Business Research recommended that the insurance industry be a very prominent target of Nebraska's economic efforts.[24] This industry has grown steadily and adds jobs that typically pay above-average wages and salaries.

Nebraska appears to have a comparative advantage in attracting the insurance industry. The following factors contribute to Nebraska's advantage: a labor force with above-average education, relatively low-cost office space, an above-average communications network, and a positive legislative and regulatory environment.

Endnotes

1. Deichert, Jerome A. "Trends in Nebraska Population, 1870-1980." *Business in Nebraska* 41 (February 1986): 1-3, 6.

2. To account for changing price levels, actual (nominal) income is divided by a price index. The adjusted income is called real income and measures income for various years as if prices had remained constant.

3. Deichert, Jerome A., and Donald E. Pursell. *The Economic Impact of the Nebraska Insurance Industry.* Lincoln, NE: Bureau of Business Research, January 1986: 5-19.

4. U.S. Department of Labor, Bureau of Labor Statistics. *Monthly Labor Review*; various issues. Washington, DC.

5. Smith, Tim R., and Marla Borowski. "High-Technology Development in the Tenth District." *Economic Review* (November 1985): 9-24.

6. The Plains region as defined by the U.S. Bureau of Economic Analysis consists of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

7. U.S. Department of Commerce, Bureau of the Census. *Statistical Abstract of the United States: 1986, 106th Edition.* Washington, DC, 1985.

8. Data for 1985 are preliminary and available only for certain categories.

9. Schultz, Theodore W. *Transforming Traditional Agriculture.* Chicago: University of Chicago Press, 1962.

10. Avery, Dennis. "U.S. Farm Dilemma." *Science* 230 (1985): 408-12.

11. U.S. Department of Commerce, Bureau of Economic Analysis. *Survey of Current Business*, various issues. Washington, DC.

12. Op. cit., Averty, 1985.

13. Ibid.

14. U.S. Department of Commerce, Bureau of the Census. *1982 Census of Agriculture*, Volume 1, Part 27, Table 49.

15. Ibid.

16. Schluter, Gerald, and William Edmondson. "How to Tell How Important Agriculture is to Your State." *Rural Development Perspectives* 2 (1986): 32-34. Schluter and Edmondson's definition of the food and fiber system is very extensive. Unfortunately, direct food producers receive less than five cents of each food dollar spent by consumers.

17. Alexander Grant and Company, *Business Climate,* 1984; and Nell Margolis, "Report on the States," *INC.*, October 1985: 90-93.

18. Nothdurft, William E., Roger J. Vaughan, and Mark Popovich. *Creating an Entrepreneurial Farm Economy: A New State Policy Approach.* Washington, DC: Council of State Planning Agencies, January 1986.

19. Jones, Bryan. *The Farming Game.* Lincoln, NE: University of Nebraska Press, 1981: 49-52.

20. Jones writes about his neighbors in central Nebraska, but social pressure led him to write under a pseudonym.

21. *Business Profile and Targets — City of Omaha,* January 1986:ii-iii.

22. Chase Econometrics. *U.S.Macroeconomic Long-Term Forecast.* Bala Cynwyd, PA, first quarter 1986.

23. Task Force on Communications and Information Systems Technology. *Nebraska as a World-Class Center for the Communications Industry.* Nebraska, January 1984.

24. Op. cit., Deichert and Pursell, 1986.